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09/801,407	03/08/2001	Michael E. Baskey	POU920000200US1	2905

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EXAMINER

TANG, KENNETH

ART UNIT	PAPER NUMBER
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2127

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/801,407

Applicant(s)

BASKEY ET AL.

Examiner

Kenneth Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☒ Claim(s) 1-58 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/17/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-58 are presented for examination.

Specification

2. Applicant is required to update the specification (page 1) to include the information of the cross-reference related that was cited, with PTO serial numbers or patent numbers where appropriate. The entire specification should be so revised.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 1-58 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**
4. Claims 1-19 are rejected under 35 U.S.C. 101 as being directed to method steps which can be practiced mentally in conjunction with pen and paper, therefore they are directed to non-statutory subject matter. Specifically, in claim 1, it is uncertain what performs each of the claimed method steps. The examiner suggests applicant to change “method” to “computer implemented methods” in the preamble to overcome the outstanding 35 U.S.C. 101 rejection.
5. As to claims 1, 20, 39, and 58, they recite steps that are too preliminary to afford a practical application of the invention. In claim 1, for example, what is obtaining and calculating is no more than manipulating the data and displaying it, thus, it fails to provide a useful action with the result of calculated data.

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6. As to claims 2-19, 21-38, and 40-57, they are dependent from non-statutory claims 1, 20, 39, and 58, respectively, and are thus non-statutory for at least the same reasons as discussed for their parent claims, as they fail to recite any limitations that resolve the deficiencies noted above in the claims from which they depend.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

a. In claim 1, the term “sizing” (line 2) is indefinite because it is not made explicit clear in the claim language whether sizing refers to the calculating (line 8), allocating (line 11), or neither.

b. In claim 1, the term “sizing metric” (line 2) is indefinite because it is not made explicitly clear in the claim language whether sizing metric refers to throughput information (line 4), resource utilization information (line 6), resource control parameters (line 8), the information (line 9), neither or all of the above.

c. In claim 1, the term “information obtained” (line 9) is indefinite because it is not made explicitly clear in the claim language whether this refers to both the throughput information (line 4) and the resource utilization information (line 6) or either of the two.

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d. In claim 1, “first partition” (lines 5 and 7) is indefinite because it is not made clear whether it is related to “a partition” (line 2) and where are the second partition, third partition, etc.

e. Claim 5 recites the limitation "shifted throughput information " in line 1. There is insufficient antecedent basis for this limitation in the claim.

f. In claim 6, the “change in throughput divided by the change in resource utilization versus resource utilization” (line 2) is indefinite because it is not made explicitly clear in the claim language whether the “change in throughput divided by the change in resource utilization versus resource utilization” is the same as the calculation of claim 1 (line 8) or if the change in throughput divided by the change in resource utilization” is the calculation of claim 1, or neither. In addition, “versus” it is indefinite because it is not made clear in the claim language if this is supposed to represent a graph, or a table, etc?

g. Claim 7 recites the limitation "effective utilization" in line 2. There is insufficient antecedent basis for this limitation in the claim. In addition, the term "effective" in claim 8 is a relative term which renders the claim indefinite. The term "effective" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

h. Claim 19 recites the limitation "inverse throughput" in line 1. There is insufficient antecedent basis for this limitation in the claim.

i. Claims 20 and 39 have the same deficiencies as claim 1 above.

j. Claims 24 and 43 have the same deficiencies as claim 5 above.

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- k. Claims 25 and 44 have the same deficiencies as claim 6 above.
- l. Claims 26 and 45 have the same deficiencies as claim 7 above.
- m. Claims 38 and 59 have the same deficiencies as claim 19 above.
- n. Claim 58 has the same deficiencies as claim 1 above. In addition, Claim 58 recites the limitation "resource control" in line 12. There is insufficient antecedent basis for this limitation in the claim. Furthermore, "a monitor connected to said manager" is indefinite because it is not made clear whether it is implying a physical connection to the manager or whether the monitor is a logical module that works with the manager. Moreover, "resource control" (line 12) is indefinite because it is not made explicitly clear in the claim language whether it refers to the resource control parameter (line 10), if it refers to the manager (line 4), or neither.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 8. **Claims 1-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Romero et al. (hereinafter Romero) (US 2002/0129127 A1) in view of Pal et al. (hereinafter Pal) (US 6,301,66).**

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9. As to claim 1, Romero teaches a method for the collection and analysis of computer system capacity data in a partition which determines a sizing metric comprising the steps of:

- a) obtaining throughput information of a computer system first partition ([0007]);
- b) obtaining resource utilization information of the computer system first partition ([0007] and [0033]);
- c) determining a resource control parameter using the information obtained ([0033]); and
- d) using the resource control parameter to indicate resource allocation ([0033]).

Romero teaches determining a resource control parameter using the information obtained but fails to explicitly teach the determining done by a calculation. However, Pal teaches a resource allocating system in which a calculation involving resource parameters are used to determine the resource allocation (*col. 11, lines 1-25*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of a determining a resource control parameter using the information obtained be done by a calculation in order to obtain a decision of resource allocation based on various significant parameters and constraints.

10. As to claim 2, Romero teaches wherein the resource utilization is CPU utilization ([0033]).

11. As to claim 3, Romero teaches wherein the throughput information is displayed at a terminal as a function of resource utilization ([0033]).

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12. As to claim 4, Romero teaches the further step of displaying inter-interval weighted averages as a function of resource utilization ([0031], [0033] and claim 15).

13. As to claim 5, Romero teaches wherein shifted throughput information is displayed at a terminal as a function of resource utilization ([0033]).

14. As to claim 6, Romero fails to explicitly teach wherein the resource control parameter is displayed at a terminal as change in throughput divided by the change in resource utilization versus resource utilization. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of the resource control parameter is displayed at a terminal as change in throughput divided by the change in resource utilization versus resource utilization because it would be very desirable to see an analysis of the changes done.

15. As to claim 7, Romero fails to explicitly teach wherein the display of effective utilization is marked at the utilization at which the resource control parameter is half of its maximum. However, it would be obvious to one of ordinary skill in the art at the time the invention was made to include the feature that the display of effective utilization is marked at the utilization at which the resource control parameter is half of its maximum because it is the medium point of its utilization.

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16. As to claim 8, Romero teaches the further step of using the effective utilization to manage the workload of the first partition ([0007]).

17. As to claim 9, Romero teaches wherein the using step is performed by a workload manager ([0007]).

18. As to claim 10, Romero teaches wherein the workload manager is in a second partition ([0007]).

19. As to claim 11, Pal teaches the further step of providing the throughput information and the resource utilization information for the calculating step by way of a shared memory (*see Abstract*).

20. As to claim 12, Romero teaches the further step of providing the throughput information and the resource utilization information for the calculating step using a single operation memory to memory transfer function ([0018]).

21. As to claim 13, Romero teaches wherein the workload is managed by modifying the resources allocated to the first partition ([0007]).

22. As to claim 14, Romero teaches the method wherein the resources include I/O ([0018]).

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23. As to claim 15, Romero teaches wherein the resources include memory ([0020]).

24. As to claim 16, Romero teaches wherein the resources include processors ([0003]).

25. As to claim 17, Romero teaches a method wherein the workload is managed dynamically ([0005] – [0006]).

26. As to claim 18, Romero in view of Pal fails to explicitly teach wherein the throughput information is network packet counts. However, it is well known in the art that throughput information are network packet counts. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the feature of the throughput information being network packet counts because this is a measure of how much information has been transmitted over a network (throughput) and it is needed for the calculations involving resource allocation.

27. As to claim 19, Romero in view of Pal fails to explicitly teach wherein the inverse throughput is the throughput information. However, it is well known in the art that the inverse throughput can be used as its inverse form. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of using the inverse throughput in its inverse form to the existing system in order to make the value compatible (units wise, for example) for resource allocation calculations.

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28. As to claim 20, it is rejected for the same reasons as stated in the rejection of claim 1.
29. As to claim 21, it is rejected for the same reasons as stated in the rejection of claim 2.
30. As to claim 22, it is rejected for the same reasons as stated in the rejection of claim 3.
31. As to claim 23, it is rejected for the same reasons as stated in the rejection of claim 4.
32. As to claim 24, it is rejected for the same reasons as stated in the rejection of claim 5.
33. As to claim 25, it is rejected for the same reasons as stated in the rejection of claim 6.
34. As to claim 26, it is rejected for the same reasons as stated in the rejection of claim 7.
35. As to claim 27, it is rejected for the same reasons as stated in the rejection of claim 13.
36. As to claim 28, it is rejected for the same reasons as stated in the rejection of claim 9.
37. As to claim 29, it is rejected for the same reasons as stated in the rejection of claim 10.
38. As to claim 30, it is rejected for the same reasons as stated in the rejection of claim 11.

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39. As to claim 31, it is rejected for the same reasons as stated in the rejection of claim 12.

40. As to claim 32, it is rejected for the same reasons as stated in the rejection of claim 13.

41. As to claim 33, it is rejected for the same reasons as stated in the rejection of claim 14.

42. As to claim 34, it is rejected for the same reasons as stated in the rejection of claim 15.

43. As to claim 35, it is rejected for the same reasons as stated in the rejection of claim 16.

44. As to claim 36, it is rejected for the same reasons as stated in the rejection of claim 17.

45. As to claim 37, it is rejected for the same reasons as stated in the rejection of claim 18.

46. As to claim 38, it is rejected for the same reasons as stated in the rejection of claim 19.

47. As to claim 39, it is rejected for the same reasons as stated in the rejection of claim 1.

48. As to claim 40, it is rejected for the same reasons as stated in the rejection of claim 2.

49. As to claim 41, it is rejected for the same reasons as stated in the rejection of claim 3.

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50. As to claim 42, it is rejected for the same reasons as stated in the rejection of claim 4.
51. As to claim 43, it is rejected for the same reasons as stated in the rejection of claim 5.
52. As to claim 44, it is rejected for the same reasons as stated in the rejection of claim 6.
53. As to claim 45, it is rejected for the same reasons as stated in the rejection of claim 7.
54. As to claim 46, it is rejected for the same reasons as stated in the rejection of claim 27.
55. As to claim 47, it is rejected for the same reasons as stated in the rejection of claim 9.
56. As to claim 48, it is rejected for the same reasons as stated in the rejection of claim 10.
57. As to claim 49, it is rejected for the same reasons as stated in the rejection of claim 11.
58. As to claim 50, it is rejected for the same reasons as stated in the rejection of claim 12.
59. As to claim 51, it is rejected for the same reasons as stated in the rejection of claim 13.
60. As to claim 52, it is rejected for the same reasons as stated in the rejection of claim 14.

61. As to claim 53, it is rejected for the same reasons as stated in the rejection of claim 15.

62. As to claim 54, it is rejected for the same reasons as stated in the rejection of claim 16.

63. As to claim 55, it is rejected for the same reasons as stated in the rejection of claim 17.

64. As to claim 56, it is rejected for the same reasons as stated in the rejection of claim 18.

65. As to claim 57, it is rejected for the same reasons as stated in the rejection of claim 19.

66. As to claim 58, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Romero fails to explicitly teach a monitor connected to the manager, wherein the monitor indicates a resource allocation responsive to the resource control. However, Pal teaches an object allocator being responsible for monitoring the resource allocation process (*col. 4, lines 48-64*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of a monitor connected to the manager, wherein the monitor indicates a resource allocation responsive to the resource control in order to provide an indicator as to when the resource allocator needs to allocate or deallocate.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (703) 305-5334. The examiner can normally be reached on 8:30AM - 7:00PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt
6/27/04


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